Listing of the Claims:

1.   (Original) A method for processing a collection of tree data structures in a computer-readable database, the method comprising:

identifying a set of trees in the collection of tree data structures, each tree in the set of trees having a same structure;

forming a pattern having the same structure as each tree in the set of trees; and

processing the pattern.

2.   (Original) The method of Claim 1 wherein the pattern is processed in lieu of processing each tree in the set of trees.

3.   (Original) The method of Claim 1 wherein processing the pattern comprises applying a query tree to the pattern.

4.   (Original) The method of Claim 1 wherein processing the pattern comprises applying an extend operation to the pattern.

5.   (Original) The method of Claim 1 wherein processing the pattern comprises applying an intersect operation to the pattern.

6.   (Original) The method of Claim 1 wherein each tree in the set of trees includes a leaf node having a value, the method further comprising:

storing the pattern in a computer-readable memory; and

storing the leaf node of each tree in the set of trees in a computer-readable memory.

7.   (Original) The method of Claim 6 wherein the pattern is stored in lieu of storing the same structure of each tree in the set of trees.

8.   (Original) A method for processing a collection of tree data structures in a computer-readable database, the method comprising:

partitioning the collection of tree data structures into disjoint sets of trees, each set of trees comprising trees of a same structure;

forming a set of patterns, each pattern corresponding to one of the sets of trees, and each pattern having the same structure as its corresponding set of trees; and

processing the set of patterns.

9.   (Original) The method of Claim 8 wherein the set of patterns are processed in lieu of processing each tree in each of the sets of trees.

10.   (Original) The method of Claim 8 wherein processing the set of patterns comprises applying a query tree to each pattern in the set of patterns.

11.   (Original) The method of Claim 8 wherein each tree in each of the sets of trees includes a leaf node having a value, the method further comprising:

storing the set of patterns in a computer-readable memory; and

storing the leaf node of each tree in each of the sets of trees in a computer-readable memory.

12.   (Original) The method of Claim 11 wherein the set of patterns are stored in lieu of storing a structure of each tree in each of the sets of trees.

13.   (Original) The method of Claim 8 wherein processing the set of patterns processes the set of patterns with distributed processors, each distributed processor processing one or more of the patterns in the set of patterns.

14.   (Original) The method of Claim 8 wherein processing the pattern comprises applying an extend operation to each pattern in the set of patterns.

15.   (Original) The method of Claim 8 wherein processing the pattern comprises applying an intersect operation to each pattern in the set of patterns.

16. (Original) A system for processing a collection of tree data structures, the system comprising:

a database component operative to maintain a database comprising the collection of tree data structures;

a processing component communicatively connected to the database component, the processing component programmed to perform actions comprising:

identifying, by communicating with the database component, a set of trees in the collection of tree data structures, each tree in the set of trees having a same structure;

forming a pattern having the same structure as each tree in the set of trees; and

processing the pattern.

17. (Original) The system of Claim 16 wherein the processing component processes the pattern in lieu of processing each tree in the set of trees.

18. (Original) The system of Claim 16 further comprising:

an input component communicatively connected to the processing component, wherein the processing component is programmed to perform actions further comprising:

receiving information from the input component; and

generating a query tree based upon the received information, wherein processing the pattern by the processing component comprises applying the query tree to the pattern.

19. (Original) The system of Claim 16 further comprising:

a memory component communicatively connected to the processing component,

wherein each tree in the set of trees includes a leaf node, and wherein the processing component is programmed to perform actions further comprising:

storing the pattern with the memory component; and

storing the leaf node of each tree in the set of trees with the memory component.

20. (Original) The system of Claim 19 wherein the pattern is stored in lieu of storing the same structure of each tree in the set of trees.

21. (Original) The system of Claim 16 wherein processing the pattern comprises applying an extend operation to the pattern.

22. (Original) The system of Claim 16 wherein processing the pattern comprises applying an intersect operation to the pattern.

23. (Original) A system for processing a collection of tree data structures, the system comprising:

a database component operative to maintain a database comprising the collection of tree data structures;

a processing component communicatively connected to the database component, the processing component programmed to perform actions comprising:

partitioning the collection of tree data structures in the database into

disjoint sets of trees, each set of trees comprising trees having a

same structure, and the partitioning being assisted by

communicating with the database component;

forming a set of patterns, each pattern corresponding to one of the sets of

trees, and each pattern having the same structure as its

corresponding set of trees; and

processing the set of patterns.

24.   (Original) The system of Claim 23 wherein the processing component processes the set of patterns in lieu of processing each tree in each of the sets of trees.

25.   (Original) The system of Claim 23 further comprising:

an input component communicatively connected to the processing component,

wherein the processing component is programmed to perform actions further comprising:

receiving information from the input component; and

generating a query tree based upon the received information,

wherein processing the set of patterns comprises applying the query tree to each pattern in the set of patterns.

26.   (Original) The system of Claim 23 further comprising:

a memory component communicatively connected to the processing component,

wherein each tree in each of the sets of trees includes a leaf node, and wherein the processing component is programmed to perform actions further comprising:

storing the set of patterns with the memory component; and

storing the leaf node of each tree in each of the sets of trees with the memory component.

27.   (Original) The system of Claim 26 wherein the set of patterns are stored in lieu of storing a structure of each tree in each of the sets of trees.

28.   (Original) The system of Claim 23 wherein the processing component comprises multiple distributed processors, each multiple distributed processor processing one or more of the patterns in the set of patterns.

29.   (Original) The system of Claim 23 wherein processing the pattern comprises applying an extend operation to each pattern in the set of patterns.

30.   (Original) The system of Claim 23 wherein processing the pattern comprises applying an intersect operation to each pattern in the set of patterns.